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Perkins, Brandon

From: Russ Maddox [redacted]
Sent: Wednesday, June 19, 2013 6:43 AM
To: Garcia, Lisa; Grass, Running; Perkins, Brandon
Subject: North Pole
Attachments: City of North Pole Drinking Water Quality Report July 2012.doc

Hello all,

Thanks so much for giving me the opportunity to speak with you all about this important issue yesterday. Having had only a few minutes to attempt to relay so much information I will try to raise here what I may have failed to mention on the phone. Hopefully the letters and docs I forwarded yesterday reveal most of my concerns.

One of the big revelations for me this year was the level of "awareness" that the former and past refinery operators had of potential contamination and their utter lack of action until sulfolane was detected in the North Pole public water supply in 2009. By this time unwitting residents had already been exposed to contaminated wellwater and surface waters for years and years. This is why I question the rationale of waiting for BTEX to appear in refinery boundary monitoring wells before even considering it could have escaped the premises without being detected in the facility's monitoring wells just as sulfolane was revealed offsite without the onsite wells detecting any. According to the records and their testimony benzene and sulfolane spills and leaks were commonplace for decades. The DEC's assertion that even if BTEX was detected offsite it wouldn't necessarily be Flint Hills responsibility may be accurate but is not protective of the public. I understand the state's concerns with costs and liabilities and having a clear RP before spending but sometimes learning the truth and protecting the public and environment should be prioritized. With this being in an area of broken permafrost and accelerating melting their hydrological modeling and monitoring is even more challenging making BTEX analyses of all ground and surface waters more necessary.

Regarding signs: I have been demanding actual signs designating where ground and surface water exposure should be avoided for years. Just last week the state reaffirmed this point when they stocked a lake in North Pole which lies in the contaminated groundwater plume with rainbow trout. Although the youth of North Pole are thrilled the DEC had not yet tested these surface waters for sulfolane this year. According to DEC the results will now be in soon, yet the fish are already being consumed and many remain in the pond in the plume. Flint Hills resources pitched this story and are distributing it far and wide as some sort of evidence that all is well in North Pole.

http://www.adn.com/2013/06/06/2929490/fairbanks-hatchery-adds-catchable.html

There may be no reason to believe consuming or handling these fish or being exposed to these waters is hazardous but there is also zero evidence that it is not. If signs would have been erected from day one and moved accordingly as the extent of the contamination was revealed folks would fully comprehend the situation but as long as we are relying on the public following the DEC's website updates and reading their postcards unnecessary exposures will continue. This week the UAF extension service is leading a workshop on gardening in North Pole and they have no idea that the water is contaminated and should not be used for gardening. This would have been a great

opportunity to educate the public on the ground and surface water situation but instead adds to the illusion that all is well. If the state isn't keeping its own departments up to date and aware how can the public be expected to understand the situation?

http://www.newsminer.com/news/local_news/cooperative-extension-hosts-gardening-day-at-north-pole/article_0ad2c39a-d26d-11e2-b3bf-0019bb30f31a.html

The state is so overly concerned with unfairly stigmatizing Koch Industries that many folks that live in the plume are still being exposed through fishing and gardening, compliments of the state of Alaska. Knowing that various real estate agents are giving conflicting advice regarding disclosure of contamination on properties and that some landlords have failed to warn their tenants of the water situation adds to the case for signs and improved notification of the public.

Last year the city of North Pole distributed a Public Water Supply Report to residents which was poorly written and was unfortunately misinterpreted by many as indicating that sulfolane was still/again being detected in the new wells. Attached is the text in question. Mistakes like this have added to the confusion and mistrust. Not all of these folks are sophisticated enough to comprehend this very complex and developing situation. Since the state cannot regulate private wells the only real solution is to bring public water to all affected parties and have the Koch Brothers foot the bill. As I mentioned yesterday the notices indicating the limits being lowered being misinterpreted as to mean the levels of toxicity were declining is another case in point.

Many residents complain of health ailments that they feel are associated with being exposed to contaminated water. The state uses the ATSDR review to dismiss all claims as irrelevant. As I mentioned that "study" didn't even distinguish between folks that were actually exposed by living the plume and those that lived elsewhere in the borough and had never been exposed. Using this claim to dismiss folks' valid concerns is just plain wrong and offensive and also adds to the mistrust between those affected and those responsible. Every single person that I have interviewed has reported suffering from depression and having domestic conflicts over this situation and trying to cope with it yet these reports are unwelcome by the state. There are also many similar symptoms and conditions being reported from unrelated folks living in the plume. The state now claims they want to "hear" these reports but will not act. Why should folks bother? Koch Industries sent a mole, for the lack of a better term, to the last public meeting I put on who took notes and then afterwards tracked down these people to tell them that their claims were unrelated and invalid. I believe I mentioned how the state's public meetings were attended by settlement toting refinery managers who confronted residents there as if it was an ambush organized for their benefit.

Please feel free to contact me if any of you have any questions or suggestions. All that I hope to accomplish is that all folks within the plume are aware of the contamination and exposure pathways and are able to avoid unnecessary exposure to harmful elements.

Thanks for all of your efforts on behalf of our environment and public health.

Respectfully, Russ Maddox

Seward, Alaska

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Sulfolane Information:

Sulfolane, or tetrahydrothiophene 1, 1-dioxide, is a man-made industrial solvent, commonly used in gas production and oil refining. Sulfolane is also used in other manufacturing industries such as plastics, textiles, pharmaceuticals, and electronics. Despite its widespread use, the U.S. Environmental Protection Agency does not regulate sulfolane levels in drinking water. The City of North Pole has been sampling the City's drinking water supply since November of 2009. The samples are being analyzed by the DEC's Environmental Health Lab. The raw water from the City's supply wells have consistently shown very low levels of sulfolane, between 4 and 7 parts per billion (ppb). The two new wells are located out side of the contamination plume and were placed on-line in March of 2011. The city's treatment system is effective in removing the low levels of sulfolane which show up in tests of raw water. The treated water going to consumers does not have any sulfolane in it.

The health effects of sulfolane have not been studied in humans. What we know about the health effects of sulfolane comes from animal studies (e.g. rats, guinea pigs, mice). The Alaska Division of Public Health asked the federal Agency for Toxic Substances and Disease Registry (ATSDR) to help review the health effects research and advise on a recommended limit for sulfolane in drinking water. The ATSDR released their report on February 9, 2010, recommending 25 parts per billion sulfolane as the most protective level for drinking water. The report, along with a companion document prepared by the Alaska Division of Public Health can be found at the DEC website: . The Alaska Division of Public Health is also preparing a health consultation, which will explain the implications of sulfolane consumption at the levels found in drinking water and recommendations for using water for other purposes. The DEC Drinking Water Program is working with the City of North Pole on long term monitoring and treatment options to ensure the long term protection of the city water supply.

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